

Results of the HPLC analysis of seed extracts of transgenic *Arabidopsis* lines containing pMON10822 for the expression of ATPT2 from the napin promoter are provided in Figure 24.

c2 [Please **delete** the paragraph on page 42, lines 12-15 of the specification and **replace** it with the following amended paragraph:]

HPLC analysis results of *Arabidopsis* seed tissue expressing the ATPT2 sequence from the napin promoter (pMON10822) demonstrates an increased level of tocopherols in the seed. Total tocopherol levels are increased as much as 50 to 60% over the total tocopherol levels of non-transformed (wild-type) *Arabidopsis* plants (Figure 24).

[Please **delete** the paragraph on page 42, lines 16-23 of the specification and **replace** it with the following amended paragraph:]

Furthermore, increases of particular tocopherols are also increased in transgenic *Arabidopsis* plants expressing the ATPT2 nucleic acid sequence from the napin promoter. Levels of delta tocopherol in these lines are increased greater than 3 fold over the delta tocopherol levels obtained from the seeds of wild type *Arabidopsis* lines. Levels of gamma tocopherol in transgenic *Arabidopsis* lines expressing the ATPT2 nucleic acid sequence are increased as much as about 60% over the levels obtained in the seeds of non-transgenic control lines. Furthermore, levels of alpha tocopherol are increased as much a 3 fold over those obtained from non-transgenic control lines.

[Please **delete** the paragraph on page 42, lines 24-26 of the specification and **replace** it with the following amended paragraph:]

Results of the HPLC analysis of seed extracts of transgenic *Arabidopsis* lines containing pMON10803 for the expression of ATPT2 from the enhanced 35S promoter are provided in Figure 25.

IN THE CLAIMS ✓

Please cancel claims 2, 3, 4, 11, 12, 14, 15, 16, 17, 34-35, 37-38, and 40-41 without prejudice to or disclaimer of the underlying subject matter.

Please amend claims 1, 13, 18, 24, 36, and 39 as follows:

C3 1. (Amended) An isolated nucleic acid sequence encoding a prenyltransferase wherein said nucleic acid sequence comprises SEQ ID NO: 1.

C4 2 13. (Amended) A nucleic acid construct comprising as operably linked components, a transcriptional initiation region functional in a host cell, a nucleic acid sequence encoding a prenyltransferase, wherein said nucleic acid sequence comprises SEQ ID NO: 1, and a transcriptional termination region.

C5 3 18. (Amended) A plant cell comprising a nucleic acid construct that comprises as operably linked components, a transcriptional initiation region functional in a host cell, a nucleic acid sequence encoding a prenyltransferase, wherein said nucleic acid sequence comprises SEQ ID NO: 1, and a transcriptional termination region.

C6 Sub D21 24. (Amended) A method for producing a tocopherol compound in a host cell, said method comprising obtaining a transformed host cell, said host cell having and expressing in its genome:

a construct having a DNA sequence encoding a prenyltransferase operably linked to a transcriptional initiation region functional in a host cell,
wherein said prenyltransferase is involved in the synthesis of tocopherols.

C7 36. (Amended) [The DNA sequence of Claim 4] An isolated nucleic acid molecule encoding a prenyltransferase wherein said prenyltransferase is from corn.

C8 39. (Amended) [The DNA sequence of Claim 4] An isolated nucleic acid molecule encoding a prenyltransferase wherein said prenyltransferase is from soybean.

Please add new claims 42-44 as follows:

C9 H 42. (New) The method according to Claim 22, wherein said plant cell is obtained from a plant selected from the group consisting of *Arabidopsis*, Canola rapeseed, high erucic acid rapeseed, sunflower, safflower, cotton, soybean, peanut, coconut, oil palms, and corn.

¹²
15 ~~43.~~ (New) The method according to Claim ~~27~~, wherein said plant cell is obtained from a plant selected from the group consisting of *Arabidopsis*, Canola rapeseed, high erucic acid rapeseed, sunflower, safflower, cotton, soybean, peanut, coconut, oil palms, and corn.

C9
correl
44. (New) The method according to Claim 32, wherein said plant cell is obtained from a plant selected from the group consisting of *Arabidopsis*, Canola rapeseed, high erucic acid rapeseed, sunflower, safflower, cotton, soybean, peanut, coconut, oil palms, and corn.
